

attached page is captioned "Version with markings to show changes made." The individual amended claims are set out in "clean" form below.

b1  
1. (Amended) A laser, comprising:

a lasing chamber,

trivalent titanium ions dissolved in a liquid host within said lasing chamber, and

a semiconductor pumping device operatively connected to said lasing chamber for optically exciting said trivalent titanium ions dissolved in said liquid host within said lasing chamber, said semiconductor pumping device comprising at least one semiconductor diode for optically exciting said trivalent titanium ions dissolved in said liquid host within said lasing chamber.

c  
2. (Amended) The laser of claim 1 wherein said at least one semiconductor diode for optically exciting said trivalent titanium ions dissolved in said liquid host is operated in the near infrared at 800-900 nm causing said laser to produce a beam with tens of kilowatts of cw power with good beam quality, and wherein said laser includes a circulation system for circulating said trivalent titanium ions dissolved in a liquid host into and out of said lasing chamber.

b2  
b3  
b7  
c4  
6. (Amended) A laser method comprising:

providing a lasing chamber,

filling said lasing chamber with lasing liquid containing trivalent titanium ions dissolved in a liquid host,

optically exciting said lasing liquid in the 800 to 900 nm region with a semiconductor diode to provide a powerful laser beam, and

circulating said lasing liquid containing trivalent titanium ions dissolved in a liquid host into and out of said optical cavity and through a heat exchanger to cool said lasing liquid containing trivalent titanium ions dissolved in a liquid host.

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C5

9. (Amended) A laser system, comprising:

an optical cavity,

a lasing liquid containing trivalent titanium ions dissolved in a liquid host within said optical cavity,

a semiconductor pumping device operatively connected to said optical cavity for optically exciting said trivalent titanium ions dissolved in a liquid host within said optical cavity, said semiconductor pumping device comprising at least one semiconductor diode for optically exciting said trivalent titanium ions in the 800 to 900 nm region, and

a circulation system that provides a closed loop for circulating said lasing liquid containing trivalent titanium ions dissolved in a liquid host into and out of said optical cavity, said circulation system including a pump and a heat exchanger.